Using Common Assessments as Formative Assessments

Annette Moody & Susie Bollinger
(Hardin School District)
Karma Nelson (CLTW/Consultant)

Goal of Session

- Share a district process for using common assessments to
  - Build professional learning communities of teachers who teach mathematics
  - Use as formative assessments to adjust instructional practice and student learning
  - Connect curriculum, assessment and instruction

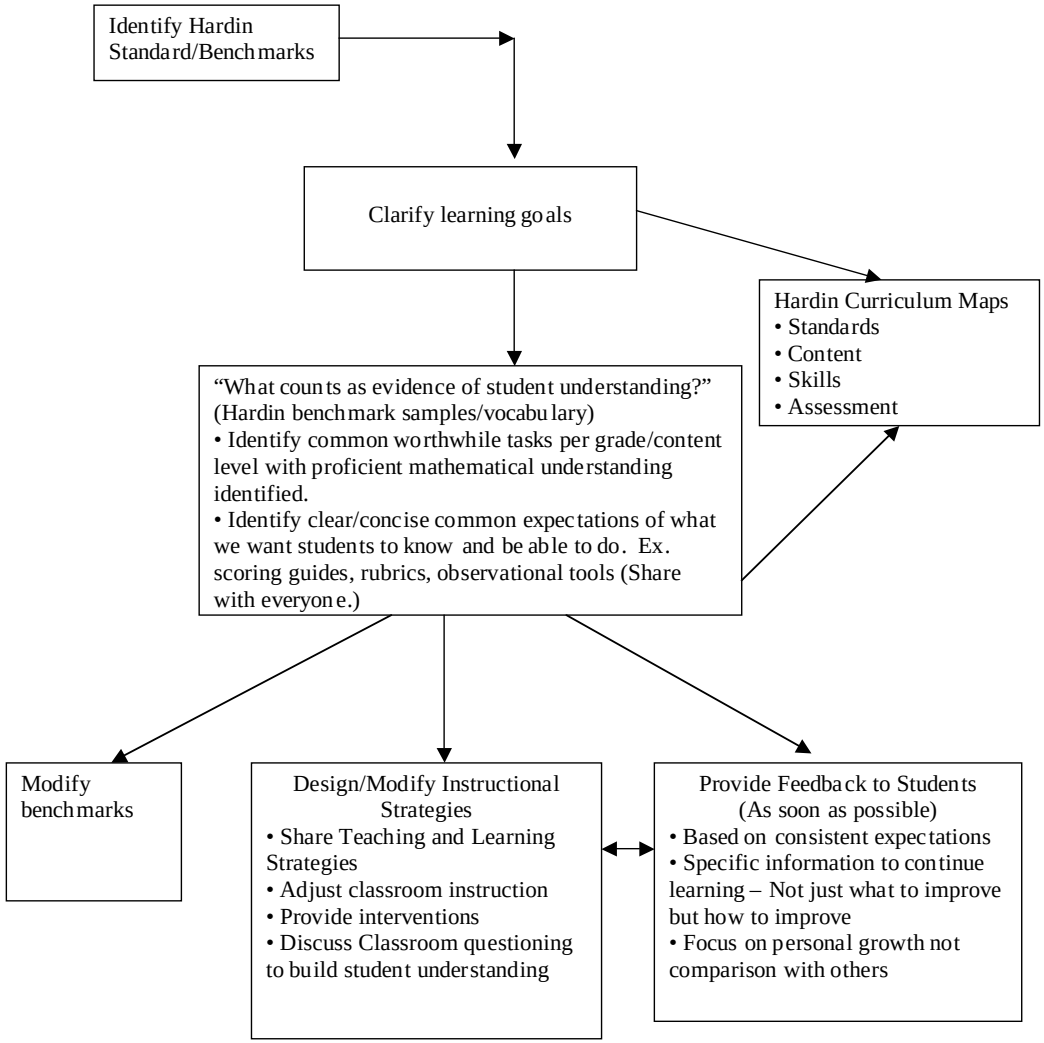
Project Demographics/Background

- 1 Primary (K-2), 2 (K-5), 1 Intermediate (3-5), 1 Middle school (6-8) and 1 High School (9-12).
- K-5 schools are on the Crow reservation, the remaining schools are in Hardin
- Eight 5th grade classrooms/teachers/ 3 schools funnel into one 6th grade teachers' classes.
- Little opportunity to collaborate and come to consensus on what students should know and be able to do between schools

District Timeline for Curriculum/Assessment Development

April 2005	Ianalyze Training for district administrators and teachers.
Oct. 2005	Trained curriculum teams in a process to develop benchmarks for each grade level. (Alicia Moe)
June 2006	District Draft Math Benchmarks completed.
2006-07	Administrators and teacher leaders trained in Curriculum Mapping.
2007-08	• District mapping of mathematics K-12. • Ongoing training in formative assessments K-12 (Karma Nelson)
Aug. 2008	Develop quarterly grade level common assessments with math task force based on curriculum essential maps.
2008-09	Set framework for teacher led professional learning teams to work on a regular basis district wide.

Hardin School District
Mathematics Curriculum, Instruction and Assessment
(Based on Understanding by Design, McTighe & Wiggins)



Curriculum Mapping

- Content-1st Phase-Mathematics K-12
- Skills-from implicit to explicit
- Assessment

  - Summative-CRT, ITBS, Chapter, Unit

  _ Formative-K-12 CA in Mathematics

  _ Common-district wide

  _ Same-by building

Common Assessments as described by Curriculum Mapping Process

- Administered during the same time frame
- Administered to all students at grade level across district
- Scored using agreed upon rubric

Effective Mathematics Formative Assessment

- Clarify, **share** and understand what students are expected to know - provide consistency.
- Create effective classroom discussions, questions, activities and tasks that offer the right kind of evidence of how students are progressing to the espoused learning goals - rich tasks
- Provide frequent/immediate feedback that moves learning forward
- Encourage students to take ownership of their own learning
- Using students as learning resources for each other.

The Project Framework

- Establish grade level professional learning communities across district
- Make instructional/assessment decisions based on the data
- Use common assessment as formative assessments

Professional Learning Communities

- Shared values and goals
- Focus on student achievement
- Collaboration
- Reflection
- Deprivatizing Practice

What Did the Data Indicate?

Susie Bollinger

Teacher Leader Hardin School District

Why Look at Data?

- To determine the standards and question types where our students are excelling and where improvement is needed at the district level and each grade level..

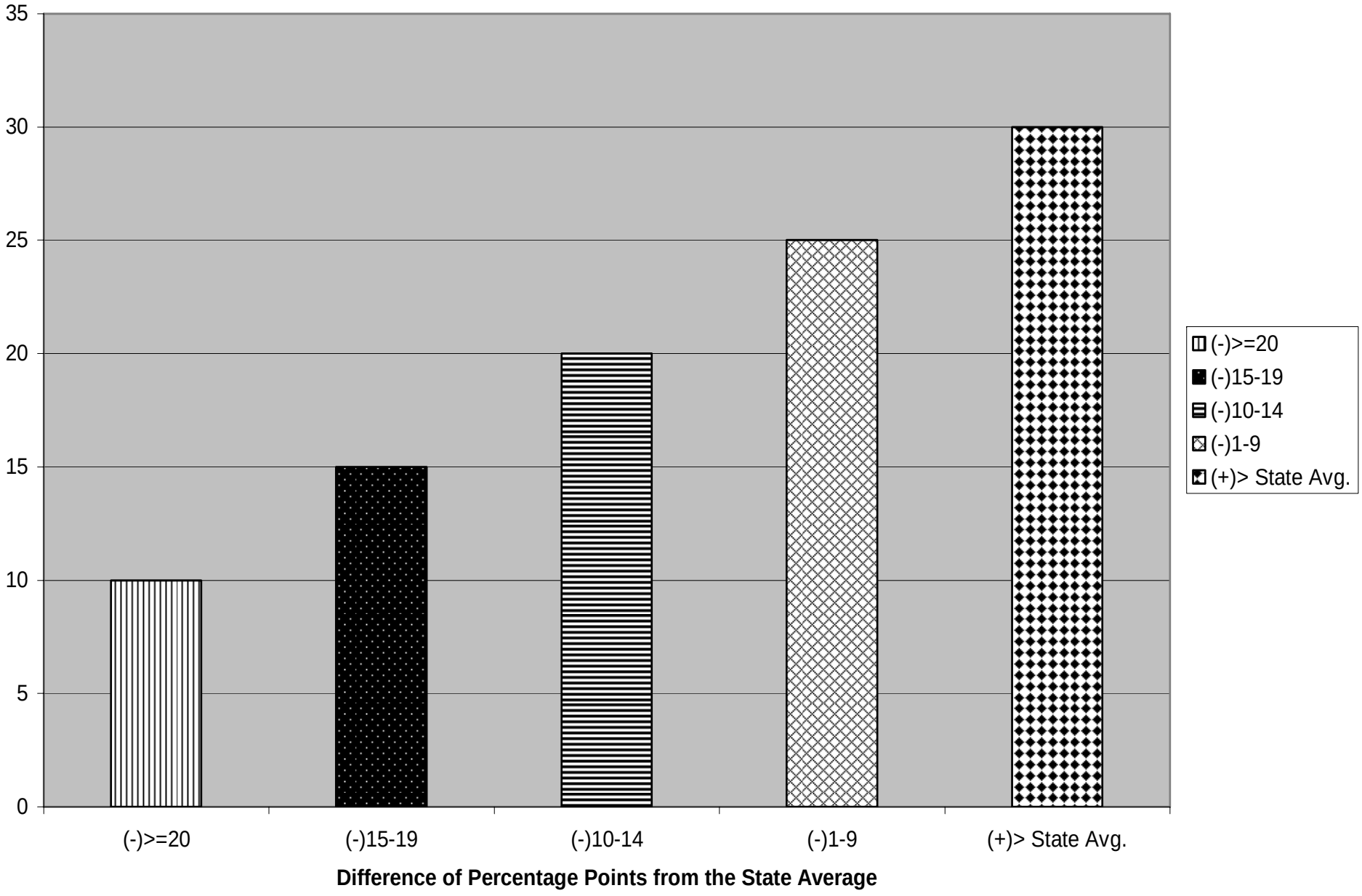
Where Did You Get the Data?

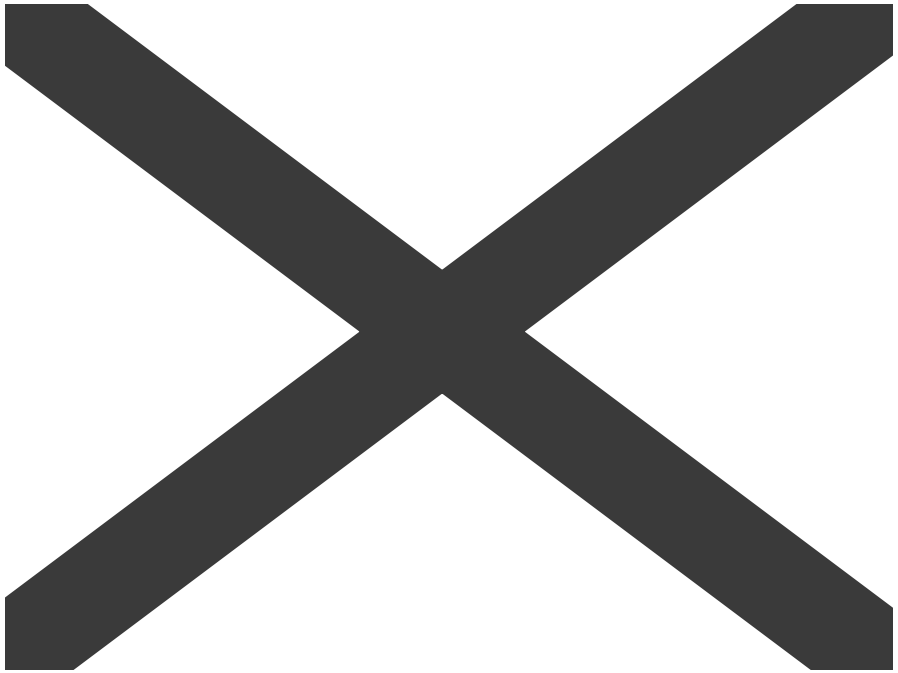
- I-Analyze website
- Assessments
- Item Statistics

For each grade level:

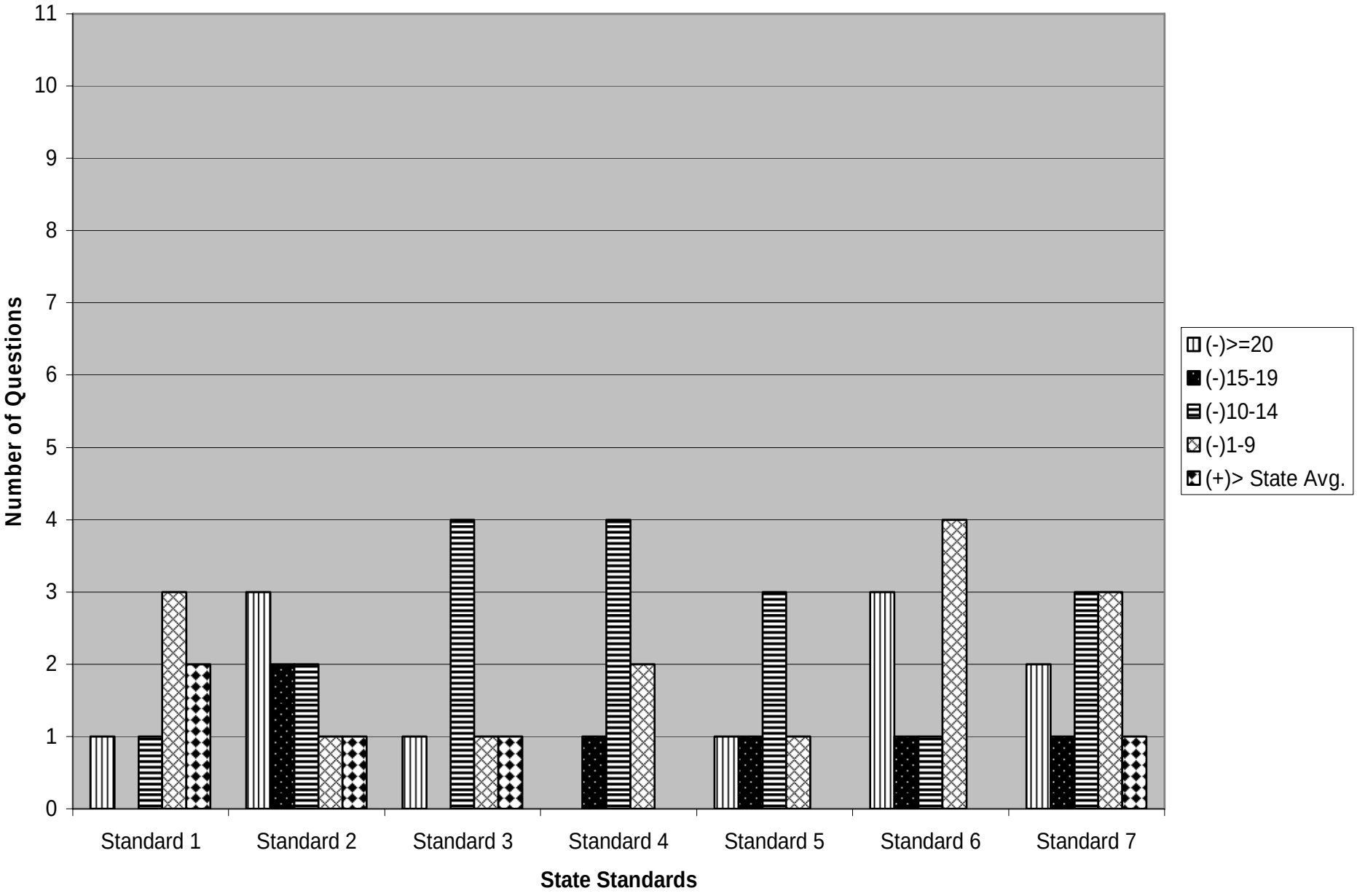
- Coded questions by the difference in percentage points from the state average
- Counted the number of questions in each standard for each category

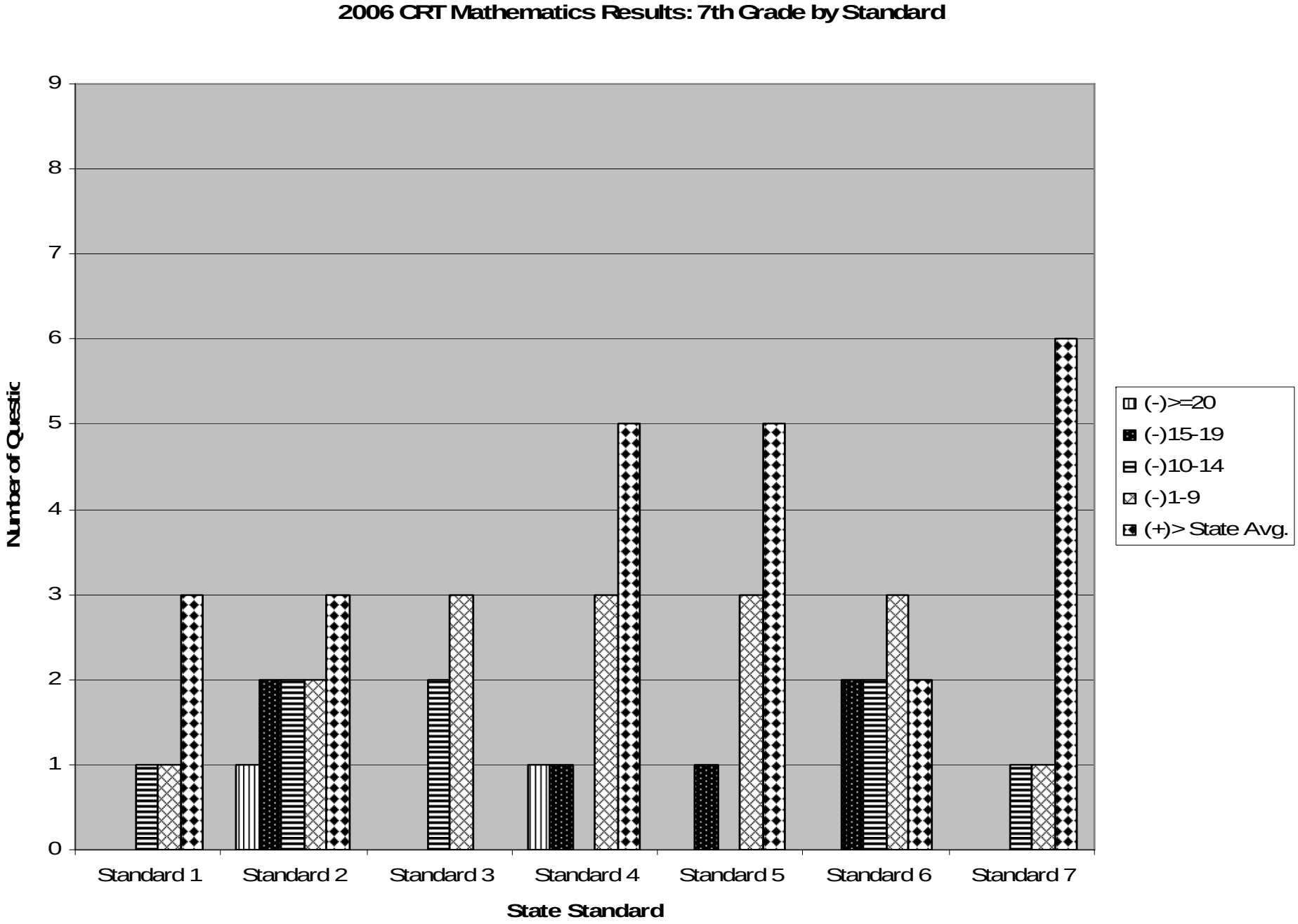
Guide to Data Coding



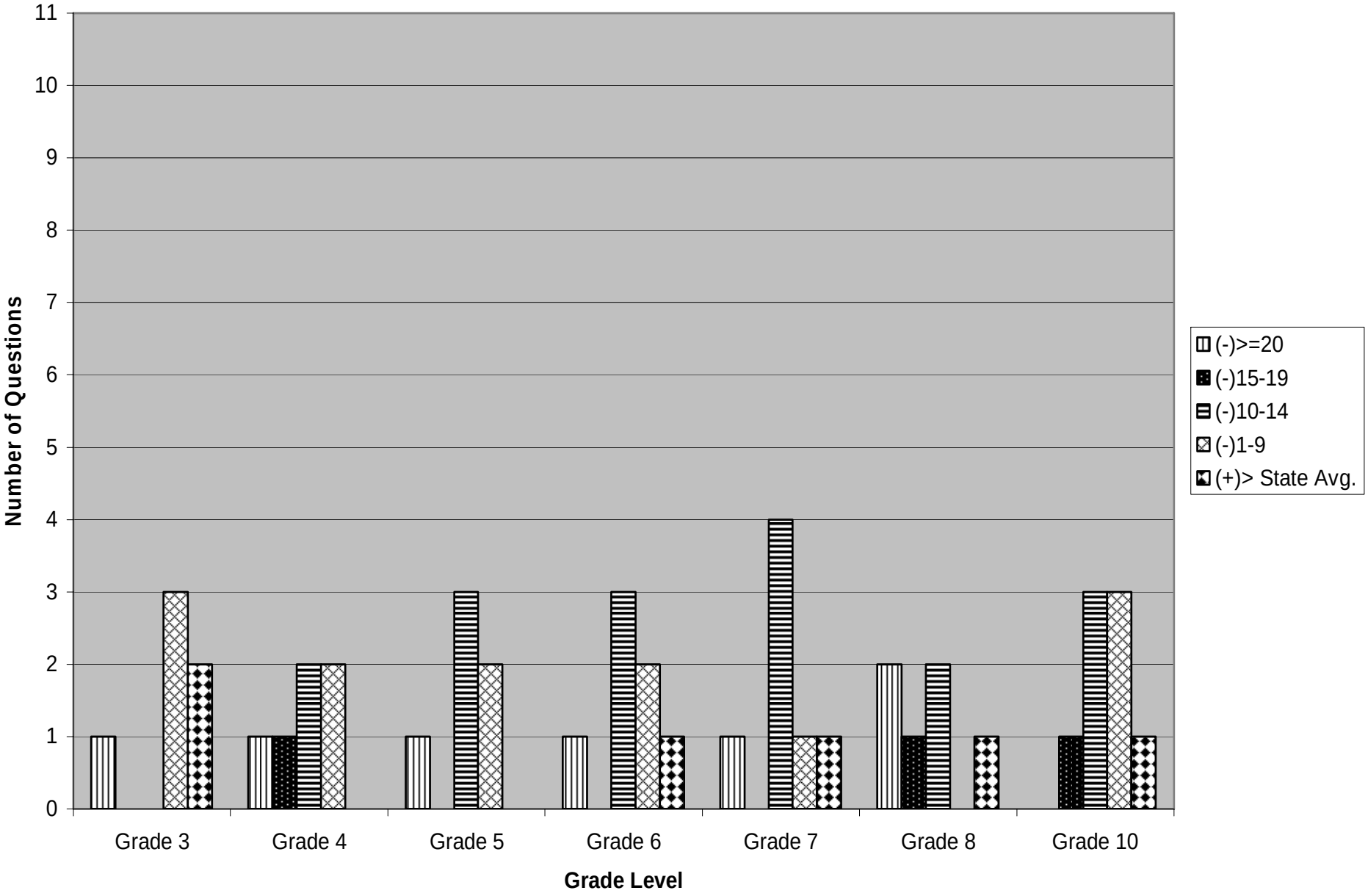


2007 CRT Mathematics Results: Grade 7 by State Standards

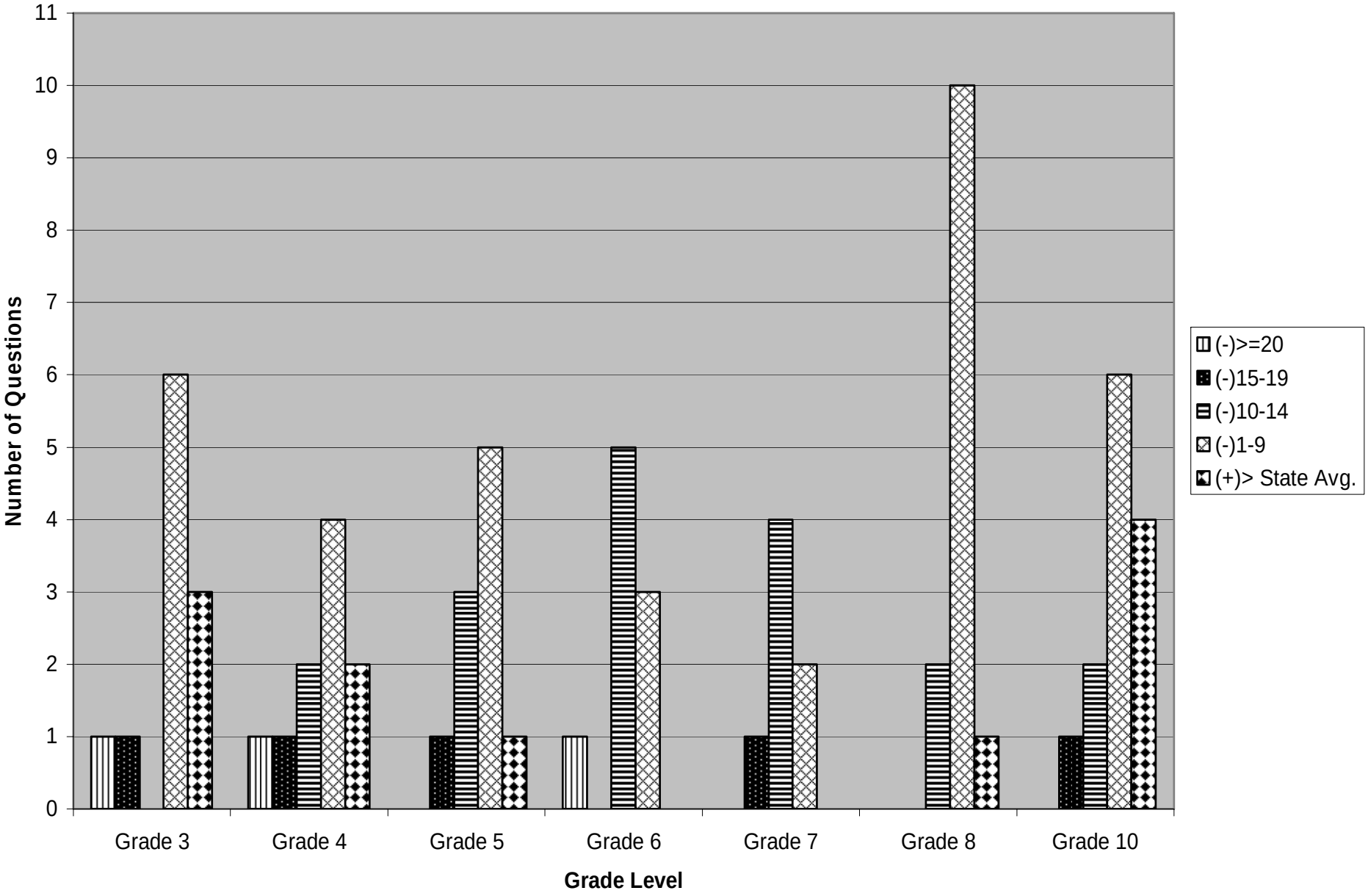



2006 CRT Mathematics Results: 7th Grade by Standard
Number of Questic
9
8
7
6
5
4
3
2
1
0
Standard 1
Standard 2
Standard 3
Standard 4
Standard 5
Standard 6
Standard 7
State Standard
(-)>=20
(-)15-19
(-)10-14
(-)1-9
(+)> State Avg.

2007 CRT Mathematics Results: Standard 3 - Algebra



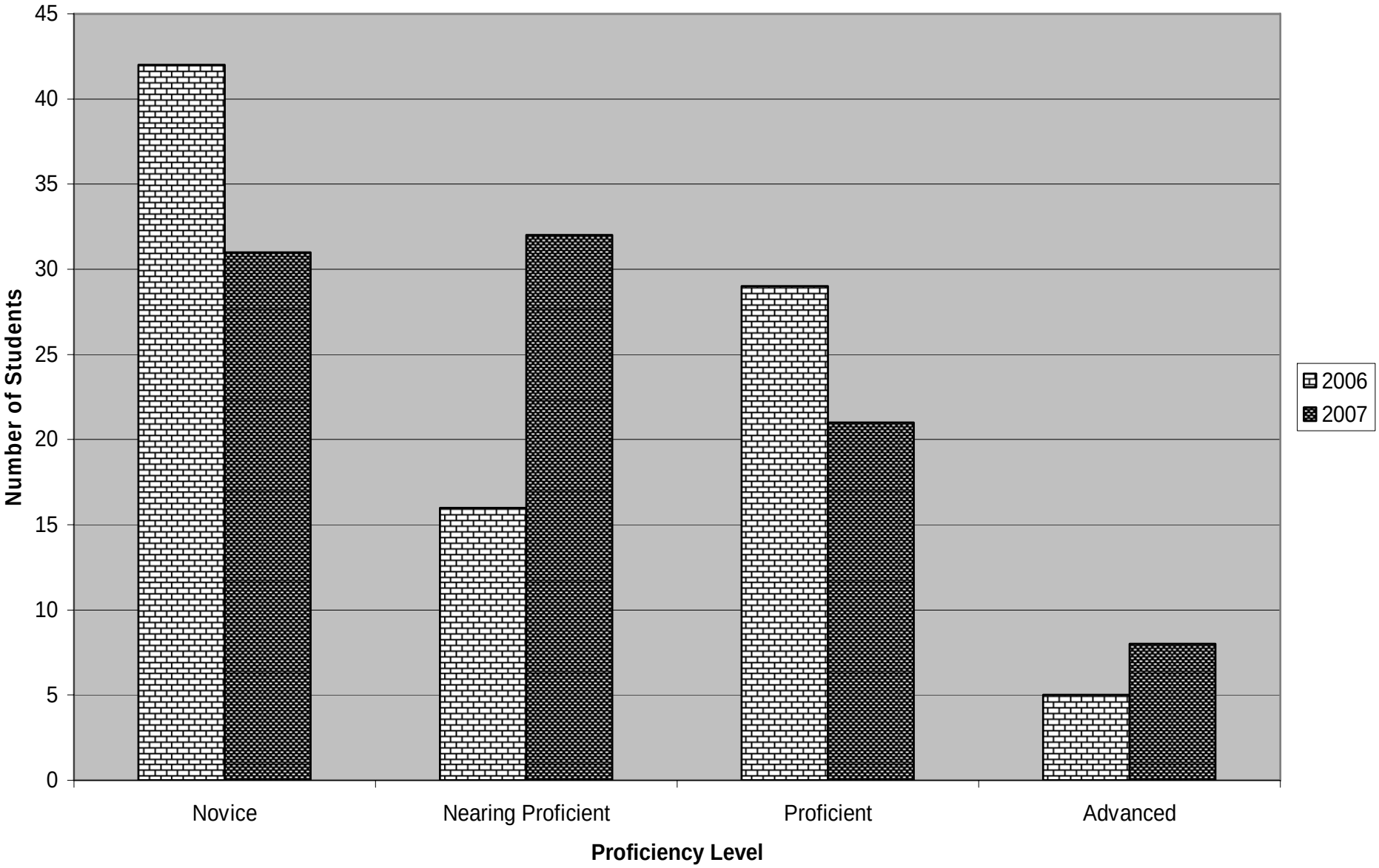
2007 CRT Mathematics Results: Standard 4 - Geometry



Another Way to Look at the Data

- We can also look at cohorts of students for trends that may occur.
- A cohort would be a group of students who have tested in the Hardin district for 2 or more years in a row.
- We currently have 6 cohorts of students with a new cohort beginning each year.

2007 CRT Mathematics Results: Comparison of Cohort of Students in the District for Two Years - Grade 6 in 2006 & Grade 7 in 2007



Vision for Common Assessments Used as Formative Assessments

- Design grade level common assessments and rubrics
  - Based on data
  - Designed by grade level teachers
  - Group scored by grade level teachers
  - Address strategies for teaching content prior to assessment

Vision for Common Assessments Used as Formative Assessments

- After assessment window
  - Discuss strategies for reteaching/intervention etc. in grade level meetings
  - Discuss strategies for giving descriptive feedback to students
  - Revise assessment and/or rubric
  - Modify district benchmarks

“Intent” of the project

- Teachers meet and discuss strategies for teaching content before assessment
- Use results of the assessment to give descriptive feedback students
- Teachers meet to edit assessment/rubric
- Teachers decide additional next steps needed(professional development needed on instructional strategies, giving descriptive feedback to students etc.)

What happened…

- Teacher task force designed 3 common assessment drafts (August)
- Dates for the first/second assessments window was set for November/January
- Communication regarding the process and vision to all teachers prior to the first common assessment was “iffy”. Communication was greatly improved after going through the process once.
- Strategies for teaching the content were discussed after the assessments to be integrated next year.

Sample teacher designed common assessments

- Handout (Grades 1,7, & 10)
- Reference standard and benchmark (What are we assessing?)
- Describe/illustrate performance levels (What's proficient?)
- Identify source

Where are we now?

- Administered two common assessments
- Teachers met in grade level meetings to score student papers.
- Teachers edited three common assessments
- Teachers debriefed assessments and process.

What happened during debriefing?

- High School
  - Department met for a full day
  - Discussed/scored/edited assessments
  - Agreed to meet every Friday to discuss alignment of high school curriculum
- Middle school
  - 3 Math teachers participated in 2 day initial meetings - planned concurrent content strands/assessments for the entire year so they could plan together through the year.
  - Support from administrator to meet as a department for a full day to score the first two assessments

K-5th Reflections

- Large groups - 8-9 teachers per grade level
- Discovered some assessments were weaker than others.
- Communication between teachers was difficult due to low levels of trust, distance and time.
- Some grades had more editing than others.
- Strong/committed teacher leaders critical.
- A need for training in facilitating meetings became evident.
- Reflections led to discussion of needed professional development.

What did we learn?

- Administrative support critical
  - Establishing culture of PLCs
  - Time needed for teacher collaboration
  - Need for a balanced assessment system
  - Understanding of and need for formative assessment

What Did We Learn?

- Teachers need support in how to collaborate *(Critical Friends).*
- Grade level teacher leaders are critical. They need training and support.
- Teachers need TIME
- PLC's are in their infancy - trust is beginning to build
- Teachers need professional development in instructional strategies for teaching math

Where are we now?

- **Mapping**-Essential Map for Mathematics is being developed.
- **Benchmarks** are being revised as teachers align them with instruction.
- **Interventions** are being implemented in each building.
- Part time district **math coach** hired for next year.
- Continued work on **common assessments** planned for summer.

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